Vol. 3, 1970

Pharmacology

International Journal of Experimental and Clinical Pharmacology

Successor to 'Medicina et Pharmacologia Experimentalis' (Section B)

Editors

B. B. Brodie, Bethesda, Md.
R. Domenjoz, Bonn
E. Vesell, Hershey, Pa.

Editorial Staff

G. L. Gessa Bethesda, Md.
H. Harders, Hamburg
B. Holmstett, Stockholm
K. Karzel, Bonn
O. Kraupp, Bochum
J. Landon, London
P. Lechat, Paris
K. Mörsdorf, Bonn
F. Sjöqvist, Stockholm
G. Zbinden, Cambridge
G. Zetler, Lübeck

S. Karger · Basel · München · Paris · New York

S. Karger AG, Arnold-Böcklin-Strasse 25, 4000 Basel 11 (Switzerland)

All rights, including those of translation into other languages, reserved.
Photomechanical reproduction (photocopy, microcopy) of this volume or parts thereof without special permission of the publishers is prohibited.

© Copyright 1970 by S. Karger AG., Basel.
Printed in Switzerland by Friedrich Reinhardt AG, Basel
Blocks: Aberegg-Steiner & Co., Bern, and Steiner & Co., Basel

Index

ARAGÃO, J. A.: vide MORAES, S. DE

ARONOFF, M. S.: vide GREENSPAN, K.

AVIADO, D. M. and BELEJ, M.: Pharmacology of New Antimalarial Drugs. Two Quinolinemethanols 257

BARGMANN, R. E.: vide CASTER, W. O.

BEAVEN, M. A.: vide SEVERS, W. B.

BELEJ, M.: vide AVIADO, D. M.

BENAZIĆ, B.: vide DŽOLJIĆ, M.

BOGDANSKI, D. F.: vide GREENSPAN, K.

BORBÉLY, L.: vide RADÓ, J. P.

BOYD, E. M. and SHEPPARD, E. P.: Inhaled Anisaldehyde and Respiratory Tract Fluid 345

BRAND, JUDIT; NOVAK, M. and RUDAS, BARBARA: The Effect of Butylbiguanide on the Fat-induced Hyperlipemia in Normal and Alloxan Diabetic Rats 330

BREYER, J. I. J. DE; ORTIZ, A. and SOEHRING, K.: The Effects of Aldehydes on Serotonin Metabolism in Rat Liver Slices 85

BRODIE, B. B.: vide KRAWCZAK, J. J.

BUCKLEY, J. P.: vide SEVERS, W. B.

CARVALHO, F. V.: vide MORAES, S. DE

CASTER, W. O.; WADE, A. E.; NORRED, W. P. and BARGMANN, R. E.: A Differential Effect of Dietary Saturated Fat on the Metabolism of Aniline and Hexobarbital by the Rat Liver 177

DENKO, C. W. and WHITEHOUSE, M. W.: Effects of Colchicine in Rats with Urate Crystal-Induced Inflammation 229

DITZION, B. R.; PAUL, M. I. and PAUK, G. L.: Measurement of Adenosine 3′,5′-Monophosphate (Cyclic AMP) in Brain 25

DITZION, B. R.: vide PAUL, M. I.

DOMENJOZ, R.: vide KALBHEN, D. A.

DŽOLJIĆ, M.; BENAZIĆ, B. and MICULINIĆ, T.: The Supersensitivity to 5-Hydroxytryptamine Induced by Cocaine in Terminal Part of Guinea-pig Ileum 282

EBADI, M. S.: Increase in Brain Pyridoxal Phosphate by Chlorpromazine . 97

EVANGELISTA, A. M.; GATTONI, R. C. and IZQUIERDO, I.: Effect of Amphetamine, Nicotine and Hexamethonium on Performance of a Conditioned Response during Acquisition and Retention Trials 91

FULGINITI, SUSANA: vide ORSINGHER, O. A.

FUMAROLA, D.: Further Investigations on the Immunosuppressive Effect of Alanosine 215

FUMAROLA, D.: Preliminary Studies on the Immunosuppressive Action of Alanosine 107

GATTONI, R. C.: vide EVANGELISTA, A. M.

GELDERBLOM, P.: vide KALBHEN, D. A.
GORDON, J. W.: vide SEVERS, W. B.
GÖZSY, B.: vide KATO, L.
GREENSPAN, K.; ARONOFF, M. S. and BOGDANSKI, D. F.: Effects of Lithium Carbonate on Turnover and Metabolism of Norepinephrine in the Rat Brain-Correlation to Gross Behavioral Effects 129
HELFER, H. and JAQUES, R.: Drug-dependent Differences in the Development of Tolerance to Writhing in Mice 41
HERMAN, E. H. and VICK, J. A.: The Acute Pharmacological Actions of Daunomycin in the Dog and Monkey 291
IRESON, J.: vide SMITH, J.
ISHII, T.: vide NAKANO, J.
IZQUIERDO, I.: vide EVANGELISTA, A. M.
IZQUIERDO, I.: vide VÁSQUEZ, BEATRIZ J.
JACOBSEN, S.: vide SEVERS, W. B.
JAQUES, R.: vide HELFER, H.
JAQUES, R.: vide RIESTERER, L.
KALBHEN, D. A.; GELDERBLOM, P. and DOMENJOZ, R.: Effects of Antirheumatic Drugs on Human Erythrocyte Membranes 353
KAPP, J.: vide MAHALEY, M. S., Jr.
KARPPANEN, H.; VAPAATALO, H.; LAHOVAARA, SALME and PAASONEN, M. K.: Studies with Pinealectomized Rats 76
KATO, L. and GÖZSY, B.: Test Sequences for Anti-inflammatory Steroids . 137
KATZ, M. H.: vide YEN, H. C. Y.
KRAWCZAK, J. J. and BRODIE, B. B.: Effect of Adrenalectomy and Complete Blockade of Adrenergic Function on Mortality from Histamine, Endotoxin, Formalin and Tourniquet Stress in Rats 65
KROP, S.: vide YEN, H. C. Y.
LAHOVAARA, SALME, vide KARPPANEN, H.
MAHALEY, M. S., Jr. and KAPP, J.: The Effect of Various Choline-Related Agents on Vascular Spasm Induced in the Basilar Artery of the Cat 209
MENDEZ, HALINA C.: vide YEN, H. C. Y.
MICULINIĆ, T.: vide DŽOLJIĆ, M.
MONTOYA, R. G.: Combined Effects of Some Local Anesthetics with Sodium Benzoate 1
MORAES, S. DE; CARVALHO, F. V. and ARAGÃO, J. A.: Crossed Tachyphylaxis Between Tyramine and Some Alpha Methylated Sympathomimetic Amines 168
MÖRSDORF, K. and WENGENROTH, H.: 5,5-Diphenyl-2-(2′-piperidinoethyl)-1,3-dioxolane-4-one, a New Drug with Potent Spasmolytic Activity 193
MOURA, R. S. DE; SOUZA MARTINS, S. A. DE and SOLLERO, L.: Action of Guanethidine on the Pressor Effect of Angiotensin in Adrenalectomized Dogs 15
NAKANO, J.; OLIVER, R. and ISHII, T.: Effect of Imidazole and its Derivatives on Norepinephrine-, ACTH-, Theophylline- und Dibutyryl Cyclic AMP-Induced Lipolysis in Isolated Rat Fat Cells 273

NORRED, W. P.: vide CASTER, W. O.
NOVAK, M.: vide BRAND, JUDIT
OLIVER, R.: vide NAKANO, J.
ORSINGHER, O. A. and FULGINITI, SUSANA: Effects of Cannabis sativa on Learning in Rats 337
ORTIZ, A.: vide BREYER, J. I. J. DE
PAASONEN, M. K.: vide KARPPANEN, H.
PAGE, J. G.: The Effect of Desmethylimipramine and Theophylline on Plasma Free Fatty Acids and Blood Glucose in Rats 6
PAREKH, NITINA B.: vide SANDERS, R. B.
PAUK, G. L.: vide DITZION, B. R.
PAUK, G. L.: vide PAUL, M. I.
PAUL, M. I.; PAUK, G. L. and DITZION, B. R.: The Effect of Centrally Acting Drugs on the Concentration of Brain Adenosine 3′,5′-Monophosphate 148
PAUL, M. I.: vide DITZION, B. R.
PENTTILÄ, A.: 5-Hydroxytryptamine-induced Lesions of the Mouse Liver 321
RADÓ, J. P.; BORBÉLY, J.; SZENDE, L. and TAKÓ, J.: Relationship Between the Dose of Chlorpropamide Administered Intravenously and the Antidiuretic Effect in Diabetes insipidus 122
RIESTERER, L. and JAQUES, R.: Reduction of Increased Vascular Permeability by Calcitonin 53
RIESTERER, L. and JAQUES, R.: The Influence of Anti-inflammatory Drugs on the Development of an Experimental Traumatic Paw Oedema in the Rat 243
RUDAS, BARBARA: vide BRAND, JUDIT
LAHOVAARA, SALME: vide KARPPANEN, H.
SANDERS, R. B. and PAREKH, NITINA B.: L-Tryptophan Antagonism of Epinephrine-induced Hyperglycemia in Rats 305
SAXENA, P. R.: Effect of Some Drugs on the Responses of the Vas Deferens and Seminal Vesicle to Hypogastric Nerve Stimulation in Guinea-pig *in vivo* 220
SCAPAGNINI, U. and SCOTTO, P.: On the Correlation between Enzyme Induction, Anti-Inflammatory and Thymolytic Activity in a Fast-Acting and Long-Acting Betamethasone Ester 113
SCOTTO, P.: vide SCAPAGNINI, U.
SEVERS, W. B. and BUCKLEY, J. P.: Spontaneous Activity of the Superior Cervical Nerve Following Central Administration of Angiotensin II 187
SEVERS, W. B.; GORDON, J. W.; BEAVEN, M. A. and JACOBSEN, S.: Some Observations on Aminoguanidine Pharmacology 201
SHEPPARD, E. P.: vide BOYD, E. M.
SMITH, J. and IRESON, J.: A relationship Between the Sympathetic α Receptor and the Adenyl Cyclase Systems 155
SOEHRING, K.: vide BREYER, J. I. J. DE
SOLLERO, L.: vide MOURA, R. S. DE
SOUZA MARTINS, S. A. DE: vide MOURA, R. S. DE

STANČIKOVÁ, M. and TRNAVSKÝ, K.: Effect of Mono- and Dihydroxybenzoic Acids on the Thermal Denaturation of Proteins 161
STONE, W. E.: Convulsant Actions of Tetrazole Derivatives 367
SZENDE, L.: vide RADÓ, J. P.
TAKÓ, J.: vide RADÓ, J. P.
TRNAVSKÝ, K.: vide STANČIKOVÁ, M.
VAPAATALO, H.: vide KARPPANEN, H.
VÁSQUEZ, BEATRIZ J. and IZQUIERDO, I.: The Effect of Amphetamine, Nicotine and Atropine on Pseudoconditioned Responses of Rats . . 21
VICK, J. A.: vide HERMAN, E. H.
WADE, A. E.: vide CASTER, W. O.
WENGENROTH, H.: vide MÖRSDORF, K.
WHITEHOUSE, M. W.: vide DENKO, C. W.
YEN, H. C. Y.; KROP, S.; MENDEZ, HALINA C. and KATZ, M. H.: Effects of Some Psychoactive Drugs on Experimental 'Neurotic' (Conflict Induced) Behavior in Cats 32

Book Reviews 64, 191, 252, 315, 371
News 320
Subject Index 373

Subject Index

Acetaldehyde, 85
Acetylsalicylic acid, 353
ACTH, 273
Actinomycin D, 97
Adenosine 3′,5′-monophosphate 25, 148
Adipose tissue, 6
Adrenalectomy, 15, 65
Adrenaline, 282
Adrenaline, Angiotensin effect, 15
Adrenergic function, blockade, 65
Adrenergic transmission, 220
AHR 572, 602, 605, 606, 1313, 1516, 209
Alanosine, 107, 215
Albumin, bovine, 161
Aldehydes, 85
Alloxan diabetes in rats, 330
m-Aminobenzoic acid, 353
o-Aminobenzoic acid, 353
p-Aminobenzoic acid, 353
L-2-Amino-3-(N-nitrosohydroxyl-amino) propionic acid, 215
4-Aminobenzoic acid methylester, 353
Aminoguanidine, 201
Aminophenazone, 353
Aminophylline, 155
Amphetamine, 21, 91, 168, 220
D-Amphetamine, 32, 148
Angiotensin, 76
Angiotensin, cervical nerve, 187
Angiotensin potentiation, 15
Angiotensin-sympathetic interaction, 187
Aniline, metabolism, 177
Anisaldehyde, 345
Antibiotic (immunosuppressive), 215
Antimalarial drugs, 257
Anti-mitotic and anti-inflammatory actions, 229
Antirheumatic drugs, 161, 353
Antitumour (immunosuppressive), 107, 215
Antiviral (immunosuppressive), 107, 215
Arachidonic acid, 41
1-Arterenol bitartrate, 6
Atropine, 21, 168, 220
Barbital-Na, 353
Barbiturates, 32
Basilar artery, cat, 209
Behaviour, 129
Benzodiazepine, 32
Benzyl glucofuranoside, 243
Beta-adrenergic blockade, 53, 243
Betamethasone acetate, 113
Betamethasone phosphate, 113
Betamethasone valerate, 137
Beta-phenylisopropylhydrazine, 148
Blood glucose, 6
Bovine albumin: thermal denaturation, 161
BR 18, 193
Brain, cyclic AMP, 25
Brain, cyclic AMP-level, 148
Bretylium, 220
Bromelain, 243
Bronchial fluid, 345
Butylbiguanide effect, 330

Calcitonin, 53
Calcium, 53
Cannabis sativa, 337
Capillary permeability, 137
Cardiac output, 257
Catecholamines, 155, 220, 282
Catecholamine depletion, 257
Central angiotensin effect, 187
Centrally acting drugs, effect on cycling AMP, 148
Chlordiazepoxide, 32
4,(m-Chlorophenyl carbamoyloxy)-2-butynyltrimethylammonium chloride, 220
Chlorpromazine, 32, 97
Chlorpropamide antidiuresis, 122
Chlorpropamide dose-effect, 122
Chlorpropamide intravenous, 122
Chlorpropamide renal-effect, 122
Choline related agents, 209
Coaxial stimulation, 155
Cocaine, 1, 282
Colchicine, 229
Colchicine and acute inflammation, 229
Collagen, soluble, thermal denaturation, 161

Conditioned response acquisition, 337
Conditioning, 91
Conflict induced behavior, 32
Convulsants, 367
Cortisone, 65
Cortisone acetate, 137
Crossed tachyphylaxis, 168
Cyanide, 97
Cyclic AMP, 155, 273
Cyclic AMP, brain, 148
Cyclic AMP level, 25
3′,5′-Cyclic AMP, 6
Cycloheximide, 97
Cyclopolymethylenetetrazoles, 367

Daunomycin, 291
Debrisoquine sulphate, 220
Decapitation, effect on cyclic AMP, 25, 148
Declinax®, 220
Desmethylimipramine, 6
Dextran-induced paw oedema, 53
Dextran oedema, 53
Diabetes insipidus therapy, 122
Diazepam, 32
Dibucaine, 1
Dichloro-fluoro hydroxy-prednisolone acetonide, 137
2,5-Dihydroxybenzoic acid, 353
Dihydroxybenzoic acids, 161
Dihydroergotamine, 282
1,1-Dimethyl-4-phenyl-piperazinium iodide, 220
5,5-Diphenyl-2-(2′-piperidinoethyl)-1,3-dioxolane-4-one HCl, 193
DOPA, 148
Dopa decarboxylase, 97
Dopamine, 97
Drug metabolism, effect of dietary fat, 177

EEG, 291
Electrolytes, 76
Electrolytes, brain, plasma, 129
Endotoxin, 65
Enzyme induction, 113
Ephedrine, 168
Epinephrine, 305
Erythrocytes, human, 353

Fat, dietary, effect on drug metabolism, 177
Fat loading, oral, 330
Fibrils reconstitution, 161
Flufenamic acid, 353
Fluocinolide acetate, 137
Fluocinolone acetonide, 137
Fluorohydrocortisone acetate, 137
Formaldehyde, 85
Formalin, 65
Free fatty acids in serum, 330
Glycerol, total and free, in serum, 330
Freezing, effect on cyclic AMP, 25, 148

Gamma-resorcylic acid, 161
Gentisic acid, 161
Gout, experimental, 229
Guanethidine, 15
Guanethidine sulphate, 220
Guinea-pig seminal vesicle, 220
Guinea-pig vas deferens, 220

Haloperidol, 32
Heart, isolated, 291
Heat denaturation, 353
Hemicholinium chloride, 220
Hemolysis, 353
Hemolysis inhibition, 353
Heparin, 46
Hexamethonium, 91
Hexamethonium chloride, 220
Hexobarbital, metabolism, 177
5-HIAA, 85
Histamine, 65, 220, 282
Histamine methyltransferase, aminoguanidine, 201
L-Histidine, 305
Histidine decarboxylase, aminoguanidine, 201
Hydrocortisone sodium succinate, 137
p-Hydroxybenzoic acid, 353
N-Hydroxyethylethylene-diamine-triacetic acid, 97
5-Hydroxytryptamine, 220, 282, 321
Hyperglycemia in rats, 305
Hyperlipemia, 330
Hypertension, experimental, 76
Hypogastric nerve, 220

Ileum, guinea pig, terminal part, 282
Imidazole, 273
Immunosuppression, 215

Immunosuppressive effect, 107
Indomethacin, 353
Inflammation, 137
Inflammation, bioassay, 137
Inflammation, colchicine, 229
Inflammatory reactions, 113
Inhalations, pharmacology, 345
Inhibition of hyperglycemia, 305
Intraneuronal storage sites, 168
Ismelin®, 220
Isoprenaline, 155, 220

Lidocaine, 1
Light and electron microscopy, 321
Lipase, 6
Lipid mobilization, 6
Lipolysis, 273
Lithium, 129
Liver circulation, 321
Local anesthetics, 1

MAO Inhibitor, 168
Marihuana, 337
Mast-cell, 137
Maze learning, 337
Mefenamic acid, 353
Membrane stabilization, 353
Meprobamate, 32
Mepyramine, 220
Metabolism, drugs, 177
Methylprednisolone, 137
Microcirculation, 53
Monoamines, 76
Monoamine oxidase, 129
Monoamine oxidase, inhibitor, 148
Monohydroxybenzoic acids, 161

Na-Salicylate, 353
Necrosis, 321
Neurotic behaviour, cats, 32
Nialamide, 168
Nicotine, 21, 91
Noradrenaline, 76, 155, 220, 282
Norepinephrine, 15, 273
Norepinephrine, turnover, metabolites, 129
N′,N′,N″-Trimethyl-N′-(5-cyano-5,5-diphenylpentyl) ethylene-1-ammonium-2-morpholinium dichloride, 220
Nutritional state, 6

Oxyphenbutazone, 353

Pargyline, 129
Pentobarbital, 32, 148
Pentylenetetrazole, 148
Perfumes, anisaldehyde, 345
Phenazone, 353
Phenobarbital, 32
Phenothiazines, 32
Phentolamine, 220
L-Phenylalanine, 305
Phenylbutazone, 243, 353
Phenylquinone, 41
Phobic reaction, 32
Phosphodiesterase, 155
Physostigmine salicylate, 220
Pinealectomy, 76
Plasma catecholamines, 291
Plasma free fatty acids, 6
Pressor responses, 76
Procaine, 1
Propionaldehyde, 85
Propranolol, 53, 220
Pseudoconditioning, 21
Psychoactive drugs, 32
Pyridoxal kinase, 97
Pyridoxal phosphate, 97
Pyridoxine phosphate oxidase, 97
Pyrocatechic acid, 161
Pyrrolidine derivatives, quarternary, 209

Quinolinemethanols, 257

Rat liver, 85
Regitine®, 220
Renin activity, 76
Reserpine, 6, 282
Respiration, 291
Respiratory tract fluid, 345
Response, conditioned, retention trials, 91
Rowapraxin, 193
Rutin, 243

Salicylate, 243
Salicylic acid, 161
Serotonin metabolism, 85
Sodium benzoate, 1
Soluble collagen, 161
Spasmolysant, 193
Spleen, 113
Steroids, anti-inflammatory, pharmacology, 137
Streptomyces alanosinicus, 107

Submaxillary gland, amino-guanidine, 201
Supersensitivity, 282
Sympathetic alpha receptor, 155
Sympathetic beta receptor, 155

Tetracaine, 1
Tetrazoles, 367
Theophylline, 6, 148, 273
Thymus, 113
Time-course of cyclic AMP level, 25
Tolerance to nociceptive agents, 41
Tourniquet-stress, 65
Tracheobronchial fluid, 345
Trifluoperazine, 97
Tryptophan, 305
Tryptophan pyrrolase, 113
Tubular water reabsorption, 122
Tyramine, 168, 257
L-Tyrosine, 305
Tyrosine aminotransferase, 113

^{35}S Uptake, colchicine, 229
Urate crystal-induced inflammation, 229
Urea, 97
Urethane anesthesia, 345
Urinary dilution and concentration, 122

Vascular spasms, basilar artery, 209
Vasodilatory cpds., 209
Ventricular arrhythmias, 291

Water metabolism, 122

Vol. 4, 1970

Pharmacology

International Journal of Experimental and Clinical Pharmacology

Successor to 'Medicina et Pharmacologia Experimentalis' (Section B)

Editors

B. B. Brodie, Bethesda, Md.
R. Domenjoz, Bonn
E. Vesell, Hershey, Pa.

Editorial Staff

G. L. Gessa Bethesda, Md.
H. Harders, Hamburg
B. Holmstedt, Stockholm
K. Karzel, Bonn
O. Kraupp, Bochum
J. Landon, London
P. Lechat, Paris
K. Mörsdorf, Bonn
F. Sjöqvist, Stockholm
G. Zbinden, Cambridge
G. Zetler, Lübeck

S. Karger · Basel · München · Paris · New York

S. Karger AG, Arnold-Böcklin-Strasse 25, CH-4000 Basel 11 (Switzerland)

All rights, including that of translation into other languages, reserved.
Photomechanic reproduction (photocopy, microcopy) of this volume or parts thereof without special permission of the publishers is prohibited.

© Copyright 1970 by S. Karger AG, Verlag für Medizin und Naturwissenschaften, Basel
Printed in Switzerland by Friedrich Reinhardt AG, Basel
Blocks: Aberegg-Steiner & Co., Bern, and Steiner & Co., Basel

Contents

ALTSCHILLER, H.: vide UGARTE, G.

AVIADO, M.: vide RUIZ, R.

BARTONIČEK, V. J.: Monoamine Oxidase Inhibitors, Combined with Thymoleptics: Are they Really Unusable for Human Beings? 80

BARTONIČEK, V. J.: Special Application of Fluorescence Histochemistry: Studies on Eight Monoamine Oxidase Inhibitors in Brain Neurons . . . 16

BASTOS, W. P. and RAMOS, A. O.: Isoaminile as Inhibitor of Muscarinic and Nicotinic Ganglionic Receptors 39

BEAVEN, M. A.: vide VOLICER, L.

BERGAN, T.; MIDTVEDT, T. and ERIKSSEN, J.: Human Pharmacokinetics of Cephalexin 264

BERNARDI, D.: vide JORI, A.

BICHER, H. I.: 2-Methyl-2-tert. butyl-ketolactone, an Anti-adhesive Drug Preventing Platelet and Red Cell Aggregation 152

BIENIEK, D.: vide CARLINI, E. A.

BLASZKOWSKI, T. P.; DEFEO, J. J. and GUARINO, A. M.: Central vs. Peripheral Catecholamines in Rats During Adaptation to Chronic Restraint Stress 321

BOSSE, J.-A. and WASSERMANN, O.: On the Blood Content of Guinea-pig Tissues 273

BREULL, W. and KARZEL, K.: Influence of Phenylbutazone on the Membrane Resting Potential of Frog Skeletal Muscle Fibres *in vitro* . . . 25

BRUNO, Z.: vide CHANG, Y. C.

CARLINI, E. A.; HAMAOUI, A.; BIENIEK, D. and KORTE, F.: Effects of (–)Δ^9-trans-Tetrahydrocannabinol and a Synthetic Derivative on Maze Performance of Rats 359

CHANG, Y. C. and BRUNO, Z.: The Effect of Piperazine on Toad and Earthworm Muscle Membrane Potentials 143

CHOU, S. C.: vide CONKLIN, K. A.

CONKLIN, K. A.; CHOU, S. C.; RAMANATHAN, S. and HEU, P.: Actinomycin D: Effect on Macromolecular Synthesis in Synchronized *Tetrahymena pyriformis* 91

CRUZ-COKE, R.: vide UGARTE, G.

DÁROCZY, E.: vide MÓZSIK, GY.

DEFEO, J. J.: vide BLASZKOWSKI, TH. P.

DJAHANSOUZ, B.: vide SALIMI, M.

ERIKSSEN, J.: vide BERGAN, T.

FARESE, R. V.: vide LINARELLI, L. G.

GMAZ-NIKULIN, EDITA: vide STERN, P.

GOLSHAN, SH.: vide SALIMI, M.

GRIPENBERG, J. and PENTTILÄ, A.: Accumulation of Exogenous 1–3,4-Dihydroxyphenylalanine in the Duodenum, the Stomach, the Liver and the Heart of the Chicken Embryo 287

GUARINO, A. M.: vide BLASZKOWSKI, TH. P.
HAMAOUI, A.: vide CARLINI, E. A.
HELFER, H. and JAQUES, R.: A Method for Evaluating Tone, Frequency and Venous Output of the Isolated Murine Portal Vein. The Effect of Adrenergic and Cholinergic Stimulants 65
HELFER, H. and JAQUES, R.: The Duration of Action of Antinociceptive Agents as Determined in Mice Using the Arachidonic Acid Writhing Test 163
HEU, P.: vide CONKLIN, K. A.
JAQUES, R. and LEWIS, G. P.: Guanethidine as a Histamine Liberator . . . 316
JAQUES, R. and RIESTERER, L.: On the Paw Oedema Resulting from Subcutaneous Injection of Histamine Liberators in the Rat 1
JAQUES, R.: The Activity Pattern, in Isolated Veins, of a Benzyl Glucofuranoside Derivative Possessing Combined Anti-inflammatory and Venotropic Effects 193
JAQUES, R.: vide HELFER, H.
JAQUES, R.: vide RÜEGG, M.
JÁVOR, T.: vide MÓZSIK, GY.
JORI, A. and BERNARDI, D.: Importance of Catecholamines for the Interaction Between Reserpine and Desipramine on Body Temperature in Rats 235
KARZEL, K.: vide BREULL, W.
KERMANI, R. Z.: vide SALIMI, M.
KNOLL, J. and VIZI, E. S.: Cross-tolerance Between Para-bromo-methamphetamine (V-III) and LSD-25 278
KORTE, F.: vide CARLINI, E. A.
LINARELLI, L. G. and FARESE, R. V.: The Effects of Imidazole on Adrenal Metabolism *in vitro* 33
LIPÁK, J.: vide MÓZSIK, GY.
MACCARI, M.: vide MILANI, C.
MARDONES, J.: vide UGARTE, G.
MATHUR, P. P. and MOKLER, C. M.: The Influence of Pronethalol on Rabbit Myocardial Lipid Metabolism 257
MENDE, T. J.: Anticoagulant Activity of Synthetic Iodinated Polypeptides . . 309
MILANI, C.; MACCARI, M. and MOSCONI, P.: Action of Lycopene in the Experimental Gastric Ulcer 334
MIDTVEDT, T.: vide BERGAN, T.
MOKLER, C. M.: vide MATHUR, P. P.
MOLINENGO, L. and RICCI-GAMALERO, SILVANA: The 'Staircase Maze' and the 'Simple Staircase' in the Analysis of the Psychopharmacological Action of CNS Depressants 169
MOSCONI, P.: vide MILANI, C.
MÓZSIK, GY. and LIPÁK, J.: Central and Peripheral Excitatory and Inhibitory Nervous Processes in Patients Denervated Pharmacologically . . 102
MÓZSIK, GY.; JÁVOR, T. and DARÓCZY, E.: Alterations in Stomach Wall ATP-ADP Induced by Atropine Treatment 113
NAIR, T. B.: vide RAO, R. R.
PEDERSOLI, W. M.: Effects of Ganglionic and Cholinergic Blocking Drugs on the Pressor Response to Central Vagal Stimulation 120

PENTTILÄ, A.: vide GRIPENBERG, J.
RAMANATHAN, S.: vide CONKLIN, K. A.
RAMOS, A. O.: vide BASTOS, W. P.
RAO, R. R. and NAIR, T. B.: Investigations on Induction of Neutrophilic Granulocystosis and Toxicity of Cleistanthin-Ciba Go. 4350 – A New Glycoside from Cleistanthus collinus (Roxb) 347
REID, W. D.: vide VOLICER, L.
RICCI-GAMALERO, SILVANA: vide MOLINENGO, L.
RIESTERER, L.: vide JAQUES, R.
RIESTERER, L.: vide RÜEGG, M.
RIVERA, LUCIA: vide UGARTE, G.
RÜEGG, M.; RIESTERER, L. and JAQUES, R.: The Euglobulin Lysis Time: A Method for Evaluating the Plasma Fibrinolytic Activity of Normal and Arthritic Rats and the Therapeutic Value of Antiinflammatory (Steroidal and Non-steroidal) Agents 242
RUIZ, R. and AVIADO, M.: Pharmacology of New Antimalarial Drugs: Three Guanylhydrazones 45
SALIMI, M.; KERMANI, R. Z.; DJAHANSOUZ, B. and GOLSHAN, SH.: Impairment of Alpha Receptor Activity Induced by Cold Storage in the Isolated Rabbit Duodenum 341
SINGBARTL, G.: vide ZETLER, G.
STERN, P. and GMAZ-NIKULIN, EDITA: Protective Effect of Epsilon-aminocaproic Acid on Liver of Rat Poisoned with D-Galactosamine . . 229
STÜHLINGER, W.: vide TURNHEIM, K.
TRNAVSKÁ, Z.: vide TRNAVSKÝ, K.
TRNAVSKÝ, K. and TRNAVSKÁ, Z.: The Influence of Chloroquine Upon the Metabolism of Collagen in Rat 179
TURNHEIM, K. and STÜHLINGER, W.: The Influence of Propranolol Pretreatment on Acute Tolerance to Norepinephrine Effects on the Systemic and Pulmonary Circulations in Dogs 209
UGARTE, G.; CRUZ-COKE, R.; RIVERA, LUCIA; ALTSCHILLER, H. and MARDONES, J.: Relationship of Color Blindness to Alcoholic Liver Damage . . 297
VIZI, E. S.: vide KNOLL, J.
VOLICER, L.; BEAVEN, M. A. and REID, W. D.: The Accumulation of H^3-Serotonin in Platelet-free Rats 203
WASSERMANN, O.: vide BOSSE, J.-A.
ZETLER, G. and SINGBARTL, G.: Inhibition of Cardiac Effects of Noradrenaline by Eleven Indole Alkaloids, Two Azepinoindoles, Quinidine, Quindonium, and Propranolol 129

Book Reviews 63, 189, 255, 369
News 191
Subject Index 374

Subject Index

Acetylcholine, 65
ACTH, 33
Actinomycin D, 91
Adaptive behavior, 321
Adenosine-3′,5′monophosphate (Cyclic AMP), 33
Adenosine-5′-monophosphate (5′AMP), 33
Adjuvant arthritis, 243
L-Adrenaline, 68, 194
Adrenergic receptors, 341
α- and β-Adrenergic stimulants, 65
Alcohol, 297
Alcoholism, 297
Amines (released or exogenous), 1
Aminopyrine, 165
Amphetamine, 240
Anti-adhesive drugs, 152
Anti-adrenergic action, 129
Antiarrhythmic activity, 45
Antibiotics, 264
Anticoagulant, 309
Antihistamine, 193
Anti-inflammatory drugs, 179
Anti-inflammatory (steroidal and non-steroidal) agents, 242
Antimalarials, 45
Antireserpine activity, 235
Antiserotonin, 193
Antiserum to platelets, 207
Apocynacea alkaloids, 129
ATP-ADP system, 113
Atropine, 123, 150
Atropine treatment, 111
Atropine treatment, prolonged, 102, 113
Autonomic ganglia, 39
Azepinoindoles, 141

Blood content of guinea-pig tissues, 273
Body temperature, 235
Bradykinin, 194
Bradykinin antagonist, 193
P-Bromo-methamphetamine (V-111), 278
Butazolidin®, 25

Ca^{++}, effect on membrane potential, 25
Calcium-like effect of phenylbutazone, 25
Cannabis sativa, 359
Capacitance vessel, 193
Cardiac actions, 129
Cardiac lipid metabolism, 257
Cardiac metabolic effects of pronethalol beta blocking agent, 257
Carotenoids, 334
Catecholamines, 235, 321, 341
Central and peripheral excitatory processes, 102
Cephalexin, 264
Cephalosporins, 264
Chicken embryo, 287
Chloroquine, 179
D-Chlorpheniramine, 240
Chlorpromazine, 153, 170
Cholinergic blocking drugs, 120
Cholinergic effect, 143
Cleistanthin, 347
Cold storage, 341
Collagen metabolism, 179
Collagen, soluble, in skin, 179
Color blindness, 297
Compound 48/80, 1, 203
β1-24-Corticotrophin, 1
Cross-tolerance, 278
Curare, 150
Cyclic AMP phosphodiesterase, 33

Depressive illness, 80
Desipramine, 235
Desmethylimipramine, 80
Diallylbarbituric acid, 170
3,4-Dichloro-4′-trifluoromethylbenzophenone guanylhydrazone hydrochloride, 46
γ-(3,5-Dimethyl-morpholino)-butyrophenone hydrochloride, 17, 82
2,4-Dinitrophenol, 240
Dopa, 240
L-Dopa, 287
Duodenum L-Dopa, 287

Dypnone guanylhydrazone hydrochloride, 46

Epinephrine, 342
Epsilon-aminocaproic acid, 229
Euglobulin, 242
Euglobulin clot lysis, 242
Euglobulin lysis time, 242
Exogenous L-dopa, 287
Experimental ulcer, 334

Fatal outcome, 80
Fibrinogen, 242
Fluorescence histochemistry, 16
4-Fluoro-4′-trifluoromethylbenzophenone guanylhydrazone, 46

G6P, 33
D-Galactosamine, 229
Ganglionic blocking drugs, 120
Ganglionic receptors, 39
Ganglioplegics, 39
Granulocytosis, 347
Guanethidine, 316, 321
Guanylhydrazones, 45
Glycoside, nero, 347

Harmala alkaloids, 129
Heart L-dopa, 287
Hexamethonium, 123
Histamine, 194
Histamine liberation, 316
Hydrocortisone, 163, 165, 242
5-Hydroxytryptamine, 80
5-Hydroxytryptamine containing neurons, 16
^{14}C-Hydroxyproline, 179
Hydroxyproline in urine, 179
Hydroxyzine, 170
Hypnotics, 169

Iboga alkaloids, 129
Imidazole, 37
Imipramine, 80
Immobilization, 321
Immunosympathectomy, 203
Indole alkaloids, 141
Indomethacin, 165
Inhibitory processes, central and peripheral, 102
Iodopeptide, 309, 314
Invertebrate and vertebrate N-M transmission, 143
Isoaminile, 39
Isocarboxazide, 17, 82
Isolated atrium, 129
Isoprenaline, 68
Isoproterenol, 342

Kidney physiology, 264

Liver cirrhosis, 297
Liver disease, 297
Liver L-dopa, 287
Liver protection, 229
LSD-25, 278
Lycopene, 334

MAO-Inhibitors, new type, 16
MAO-Inhibitors, tentative classification, 16
Macroerg processes, regulation by atropine, 113
Macromolecular syntheses, 91
Macromolecule, 309
Marihuana, 359
Mast cells, 203
Melittin, 1
Membrane potential, 143
Membrane resting potential, effect of phenylbutazone, 25
Meperidine, 170
Mescaline, 278
Methadone, 170
2-Methyl-2-tert-butyl-ketolacetone, 152
α-Methyl-p-tyrosine, 240
Monoamine oxidase inhibitors, 80
Morphine, 165, 170
γ-Morpholino-butyrophenone hydrochloride, 17, 82
Muscle, skeletal, effect of phenylbutazone on membrane properties, 25
Myocardial contractility, 45

Myocardial FFA extraction, 257
Myocardial FFA metabolism, 257
Myocardial lipid metabolism, 257

Nalorphine, 165
Narcotic-analgesics, 169
Narcotic and non-narcotic analgesics, 163
Neutrophilia, 347
Nialamide, 17, 82
L-Noradrenaline, 68
Noradrenaline antagonists, 129
Norepinephrine, 203, 209, 342

Paraldehyde, 170
Pargyline, 17, 83
Pentobarbital, 170
Peptic ulcer, 102
Peracon, 39
Peripheral circulation, 152
Pharmacokinetics, human, of cephalexin, 264
Pharmacological denervation phenomenon, 102
Phenacetin, 165
Phenelzine, 17, 82
Pheniprazine, 17, 83
Phenobarbital, 170
Phentolamine, 341
Phenylbutazone, 153, 165, 242
Phenylbutazone, influence on membrane resting potential, 25
Phenylephrine, 342
L-Phenylephrine, 68
Piperazine, 143
Plasma fibrinolytic activity, 242
Platelets, 203
Platelet aggregation, 152
Polypeptides, 314
Portal vein, sac preparation, 65
^{14}C-Proline, 179
Prolylalkylderivatives of corticotrophin [D-Ser^{1}, Lys$^{17, 18}$]-β-corticotrophin-(1–19) nonadecapeptide n-tetradecylester etc., 1
Pronethalol, 257
Propranolol, 141, 209, 341
Prostigmine, 150
Protein synthesis, 33
Psychotomimetics, 278
Pulmonary circulation, 209
Pulmonary resistance, 45

Quindonium, 141
Quinidine, 141

Rabbit duodenum, 341
Rat hind-limb, 316
Rat peritoneum, 316
Receptor structure, 102
Red cell aggregation, 152
'Releaser polypeptides', 1
Reserpine, 170, 235, 321
Restraint stress, 321
RNA synthesis, 33

Serotonin, 194, 203
Sodium salicylate, 165
Staircase maze, 172
Steroidogenesis, 33
Stomach L-dopa, 287
Stomach, membranous and glandular part, 113
Stomach wall, rat, 113
Synchronized cell division, 91
Systemic circulation, 209

Tetrahydrocannabinol, 359
Tetrahymena pyriformis, 91
Thrombosis, 152
Tolerance, acute, 209
Tomatoes, 334
TPN, 33
Toxicology, Cleistanthin, 347
Tranquillizers, 169
Tranylcypromine, 17, 82
Tribenoside, 165, 193
Tribenzyl glucofuranoside, 163

Unconditioned nervous inhibitions, 102
Unconditioned nervous stimuli, 102

Vagal blockade, central, 120
Vagal stimulation, central, 120
Voacanga alkaloids, 129

KUM